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UNIT INSTALLATION AND TROUBLE SHOOTING GUIDE

New Venture 231/241

Before attempting any diagnostic work or trouble shooting on the transfer cases, make sure that the tire pressures and circumference are all the same. Do not just compare tire sidewall labels; you must measure each tire around the center of the tread. A stagger gauge will let you do this with the vehicle on the ground in 5 minutes. The tires must match in size to 1/4" (.250) if they do not sell the customer on a new set of tires and again measure them. Mismatched tire sizes and pressures will cause spline lock inside the transfer case and the unit will bang or pop out of 4WD.

Proper operation of transfer case: Never use 4WD ranges on dry pavement, light snow, or rain. Doing so will result in the chain overheating and failing. These transfer cases will bind on turns in 4WD because there is no transfer case differential, clutch pack, or viscous coupling. This is normal to have tire scrub and wheel hop in 4WD unless the unit is on a surface like snow that permits the wheels to slip.

Proper method of making a shift to low range: Stop the vehicle, turn the engine off, put the parking brake on, and shift the transmission into neutral. To shift back to 4WD High range from 4WD Low, follow the same procedure. There is no synchronization into low and any other type of shift will produce nasty grinding noises and internal damage.

Broken transfer case in NVG231 Jeep models are usually caused by the front drive shaft bottoming out at the end of the suspension travel, or rusted or seized splines on the drive shaft. If you are replacing a unit that broke the case, make sure to check the drive shafts thoroughly to prevent a repeat failure with a new or reman unit.

Broken rear case halves and speedometer housing on NVG 231 Dodge and 241 Dodge models: This is a common failure and is caused by the rear drive shaft being bent, out of balance, or having frozen U joints. When replacing a unit that has failed in this manner make sure to send the rear drive shaft out for balance, runout, and new joints.

Fill this unit with RSG530GM fluid only and change fluid every 12,000 miles.